

Appl. No : 09/933,961
Amdt. dated : 12/05/03
Reply to Office Action of 11/25/03

REMARKS/ARGUMENTS

The Examiner's final Restriction Request is acknowledged and non-elected claims 1-3 and 7-12 have been canceled. A divisional application will be filed at a later date.

Claims 4-6 and 13-18 are pending under this Office Action.

Examiner Rick Kiltae Chang is thanked for thoroughly reviewing the subject application.

Favorable reconsideration of this application in light of the above amendments and the following remarks is respectfully requested. All claims are believed to be in condition for allowance.

New text has been provided for page 14 of the specification, after the first paragraph. This text is a copy of existing claims 4 and 6, whereby numeric references have been provided to the Figs. 1, 2 and the new Fig. 5 of the invention. No new matter has been introduced by the following new text, this text is provided to facilitate an understanding of the claims of the invention.

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Specification

Reconsideration of the objection to the specification is respectfully requested based on the following.

A new title has been provided for the invention, which is more descriptive of the invention, as kindly suggested by Examiner.

In light of the foregoing response, applicant respectfully requests that the Examiner's objection to the specification be withdrawn.

Claim Rejections - 35 U.S.C. § 103(a)

Reconsideration of the rejection of claims 4-5 and 13-17 under 35 U.S.C. 103(a) as being unpatentable over Obayashi et al. (U.S. Patent 4,749,625) in view of Frederickson et al. (U.S. Patent 6,476,317) and further in view of Nagata et al. (U.S. Patent 6,582,785) is respectfully requested based on the following.

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Obayashi et al. provides an amorphous metal laminate sheet, more specifically Obayashi et al. provides for, as highlighted in the ABSTRACT that is provided by Obayashi et al.:

- a core layer containing at least one amorphous metal sheet layer
- plating of an electro-conductive metal over the core sheet
- at least one flexible polymeric coating layer laminated over at least one surface of the core layer
- (optionally) at least one reinforcing fibrous fabric layer.

A number of materials that can be used for the various layers provided by Obayashi et al. are described by the Obayashi et al. invention, whereby however the created and completed metal laminate sheet is not identified with any particular application thereof.

In addition, the composition of the amorphous metal laminate sheet provided by Obayashi et al. differs significantly from the composition of the walls of the container provided by the claimed invention, which in brief provides for, as specified in claim 4 of the claimed invention and as shown in detail in Fig. 5 of the claimed invention in combination with Figs. 1-3:

- an inner shell 42 comprising polymethylmethacrylate (PPMA)

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- a metallic layer 40 having surfaces that are coated with a layer 61 and 63, Fig. 5, of polyimide
- attaching the metallic layer 40 to the outer surface of the inner shell 42, forming a two layered shell 42/40, and
- providing an outer shell 38, comprising polymethylmethacrylate (PPMA), completely surrounding said two layered shell 42/40 with the outer shell 40.

Therefore, proceeding from the cavity 36, Fig. 2, of the contained of the invention through the walls of the container of the invention, the materials that are encountered in sequence are PPMA, polyimide, metal, polyimide and PPMA. This composition is not provided by Obayashi et al.

The above highlighted differences in composition of the various layers that are used by the claimed invention as opposed to the materials that are used by the Obayashi et al. invention, can more readily be understood by realizing that the claimed invention provides for creating a container. The materials that are therefore used for such a creation must lend themselves to this objective. As an example, the inner core layer 40 of the claimed invention lends itself to being coated with polyimide, which forms a desirable interface with surrounding layers of

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PPMA. The coated layer of metal further lends itself to being

shaped in the form of a container, whereby the coated layer of

metal is sandwiched between two layers of PPMA, as detailed in

the specification of the claimed invention, thereby providing a

layering of materials which effectively shields the component

that is loaded into the container from surrounding

electromagnetic fields.

Frederickson et al. does not, contrary to Examiner's assertions, disclose creating a box. The text, col. 7, lines 64 e.a., kindly referred to by Examiner states: "Such shielding thicknesses are comparable to typical electronic box walls on spacecraft."

Frederickson et al. provides for a radiation shield for the protection against high-energy radiation, more specifically Frederickson et al. provides for the build-up of an electric field in an insulating layer which acts to attenuate or deflect high energy radiation. The Frederickson et al. invention therefore does not provide for nor allude to the creation of a component container for storing and transporting components that are used for the manufacturing of semiconductor devices, nor does Frederickson et al. provide for the composition of the

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materials that are provided by the claimed invention for the walls of the contained as highlighted above.

Nagata et al. provides for a shield case for electronic equipment and does provide for interlocking sections from which a shield case can be assembled. At no time however does Nagata et al. address nor provide for an electrostatic discharge free container comprising a cavity that is surrounded by a compound layer of PPMA-Poly covered metal-PPMA.

To further highlight and emphasize the differences between the Obayashi et al. and the Frederickson et al. invention and the Nagate et al. invention, singly or combined, claims 4 and 6 are quoted below, which specify a method of creating an electrostatic discharge free component container for storing and transporting components that are used for manufacturing of semiconductor devices, underlining in his quote where the claimed invention differs with and is therefore patentable over the Obayashi et al. and the Frederickson et al. invention and the Nagate et al. inventions, singly or in combination, as follows:

- providing an inner shell comprising polymethylmethacrylate (PPMA)

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- providing a metallic layer having been coated with a layer of polyimide
- attaching the metallic layer to an outer surface of the inner shell, completely covering the inner shell with the metallic layer, creating a two layered shell
- providing an outer shell comprising polymethylmethacrylate (PPMA)
- completely surrounding the two layered shell with the outer shell, thereby **completing creation of an electrostatic discharge free container comprising a cavity that is surrounded by a compound layer of PPMA-Poly covered metal-PPMA.**

Additionally, providing means for positioning a component inside the cavity comprising:

- providing at least one support post
- providing at least one platform, and
- positioning the at least one platform above the at least one support post.

In light of the foregoing response, applicant respectfully requests that the Examiner's rejection of claims 4-5 and 13-17 under 35 U.S.C. 103(a) as being unpatentable over Obayashi et

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al. (U.S. Patent 4,749,625) in view of Frederickson et al. (U.S.
Patent 6,476,317) and further in view of Nagata et al. (U.S.
Patent 6,582,785), be withdrawn.

Claim Rejections - 35 U.S.C. § 103(a)

Reconsideration of the rejection of claims 6 and 18 under
35 U.S.C. 103(a) as being unpatentable over Obayashi et al.
(U.S. Patent 4,749,625) in view of Frederickson et al. (U.S.
Patent 6,476,317) and further in view of Nagata et al. (U.S.
Patent 6,582,785) as applied to claims 4-5 and 13-17 and further
in view of Gabower et al. (U.S. Patent 6,624,432) is
respectfully requested based on the following.

The relative merits of Obayashi et al. and Frederickson et
al. and Nagate et al. with respect to the claimed invention have
been argued above and are enclosed at this time by reference at
being equally applicable to claims 6 and 18.

Claims 6 and 18 are dependent claims which specify the
means for positioning a component inside the cavity of the an
electrostatic discharge free container of the invention, the

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container of the claimed invention comprising a cavity that is surrounded by a compound layer of PPMA-Poly covered metal-PPMA.

Gabower et al. provides an EMI containment apparatus.

Examiner kindly refers to Fig. 2 of the Gabower et al. invention with the suggestion that the electronic enclosure assembly, of which a three-dimensional exploded view of shown in Fig. 2, provides for the at least one post comprising a high-resistivity material.

By comparing the cross section of Fig. 2 of the claimed invention, which shows a cross section of the container of the claimed invention, with Fig. 2 of Gabower et al. it will be readily understood that the two structures have no basis of commonality.

The component support elements of the claimed invention, as shown in the cross section of Fig. 2, are elements 44, first supports which are provided underneath a component support unit 46, element 46, a plastic component support unit over which the components that are transported using the component container 10 of the invention are positioned during transportation and elements 48, second supports which are provided on the surface of plastic support unit 46.

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The Gabower et al. invention, as shown in Fig. 2 of the Gabower et al. invention, provides for, see col. 3, lines 55 e.a., an electronic enclosure design of a cellular phone, further comprising as shown in Fig. 2 of the Gabower invention:

- 10, a bottom enclosure housing
- 25, a gap filling gasket
- 22, conductive coating
- 21, an EMI/RFI containment form
- 32, a Printed Circuit Board, and
- 12, a top enclosure housing.

The assembly that is provided by Gabower et al. provides for a permanent mounting of a cellular phone therein. The mounting platform of the claimed invention, with its supporting components such as elements 44, 48, door 14, is provided for relatively quick entry and exit of components, such as a photolithographic exposure reticle, from the container of the invention such that this container can be used in a (dynamic) semiconductor manufacturing environment.

While applicant acknowledges the teachings of Obayashi et al. and Frederickson et al. and Nagate et al. and Gabower, as cited by the Examiner, and although applicant does not

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necessarily agree that the Examiner's arguments show sufficient and proper basis for suggestion or motivation to modify or combine Obayashi et al. and Frederickson et al. and Nagate et al. and Gabower, applicant nonetheless also asserts that there is absent within the portions Obayashi et al. and Frederickson et al. and Nagate et al. and Gabower or any combination thereof, as cited by the Examiner, an express or inherent teaching of each and every limitation within applicant's invention as taught and claimed in claims 6 and 18 and claims 4-5 and 13-17 of the claimed invention.

In this regard, applicant claims that there is absent from the portions of Obayashi et al. and Frederickson et al. and Nagate et al. and Gabower, or any combination thereof, as cited by Examiner, a teaching of providing an electrostatic discharge free container comprising a cavity that is surrounded by a compound layer of PPMA-Poly covered metal-PPMA by providing a container comprising an inner shell comprising polymethylmethacrylate (PPMA), a metallic layer having surfaces that are coated with a layer of polyimide, and attaching the metallic layer to the outer surface of the inner shell, forming a two layered shell and providing an outer shell, comprising polymethylmethacrylate (PPMA), completely surrounding said two layered shell with the outer shell.

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None of the applied or known references address the invention as shown in the amended claims in which a readily accessible container is provided such that this container can be used in a cost-effective manner in a semiconductor manufacturing environment for component transportation while assuring that these components are not exposed to ESD damage. The invention is believed to be patentable over the prior art cited, as it is respectfully suggested that the combination of these various references cannot be made without reference to Applicant's own invention. None of the applied references address the problem of providing a container that can be used to transport semiconductor components such that these components will not be affected by discharge of static electricity, of providing a method and package for handling a photolithographic reticle and of providing a method and package that prevents the occurrence of ESD on a photolithographic reticle.

Applicant has claimed the process in detail. The processes and structures of Figs. 1-5 are both believed to be novel and patentable over these various references, because there is not sufficient basis for concluding that the combination of claimed elements would have been obvious to one skilled in the art. That is to say, there must be something in the prior art or line

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of reasoning to suggest that the combination of these various

references is desirable. We believe that there is no such basis for the combination. We therefore request Examiner Rick Kiltae Chang to reconsider the rejection in view of these arguments and the amendments to the Claims.

In light of the foregoing response, applicant respectfully requests that the Examiner's rejection of claims 6 and 18 under 35 U.S.C. 103(a) as being unpatentable over Obayashi et al. (U.S. Patent 4,749,625) in view of Frederickson et al. (U.S. Patent 6,476,317) and further in view of Nagata et al. (U.S. Patent 6,582,785) as applied to claims 4-5 and 13-17 and further in view of Gabower et al. (U.S. Patent 6,624,432), be withdrawn.

Other Considerations

No new independent or dependent claims have been written as a result of this office action, no new charges are therefore incurred due to this office action.

It is requested that, should Examiner not find the claims to be allowable, to call the undersigned Attorney at the Examiner's convenience at 845-452-5863 in order to overcome any problems preventing allowance of the claims.

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Respectfully submitted,

A handwritten signature in black ink, appearing to be 'SBA', written in a cursive style.

Stephen B. Ackerman
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Tel. (845) 452-5863



1/3
Annotated Sheet
Showing Changes

TS/MC-01-325

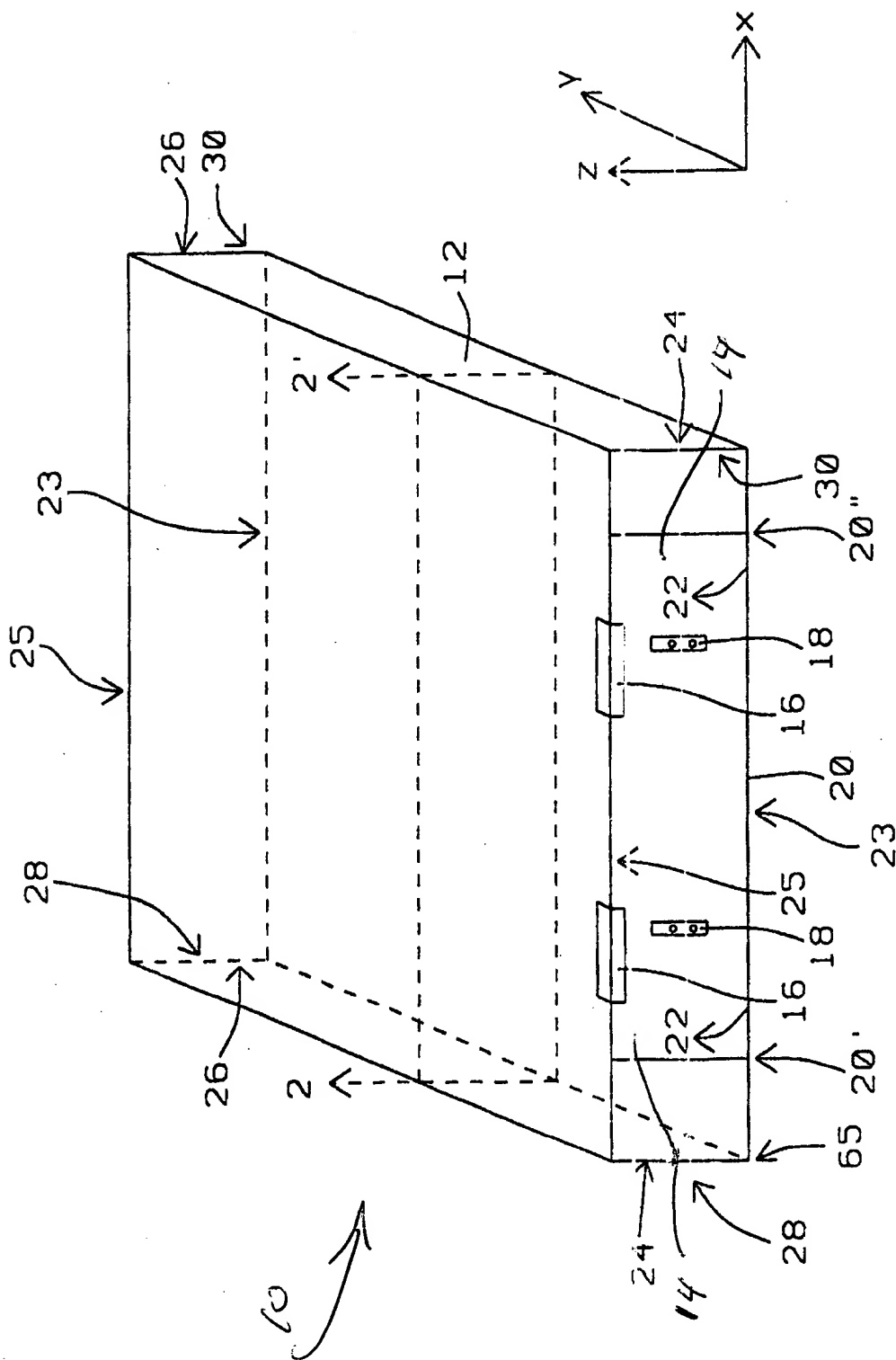


FIG. 1



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Annotated Sheet
Showing Changes

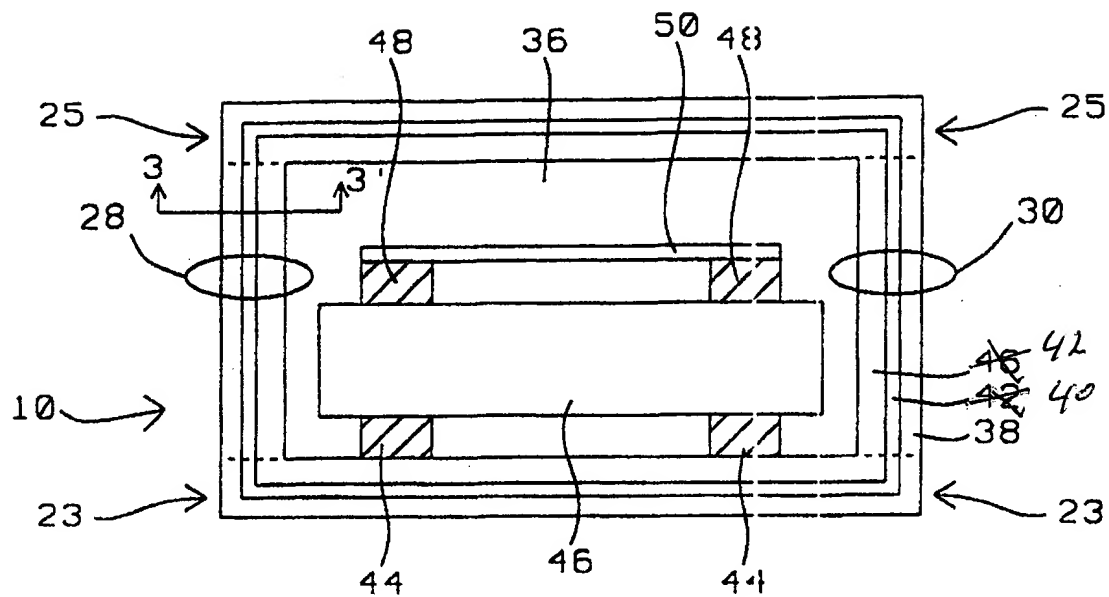


FIG. 2

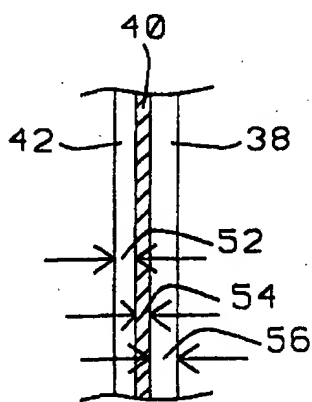


FIG. 3



Annotated Sheet
Showing Changes

7501-325

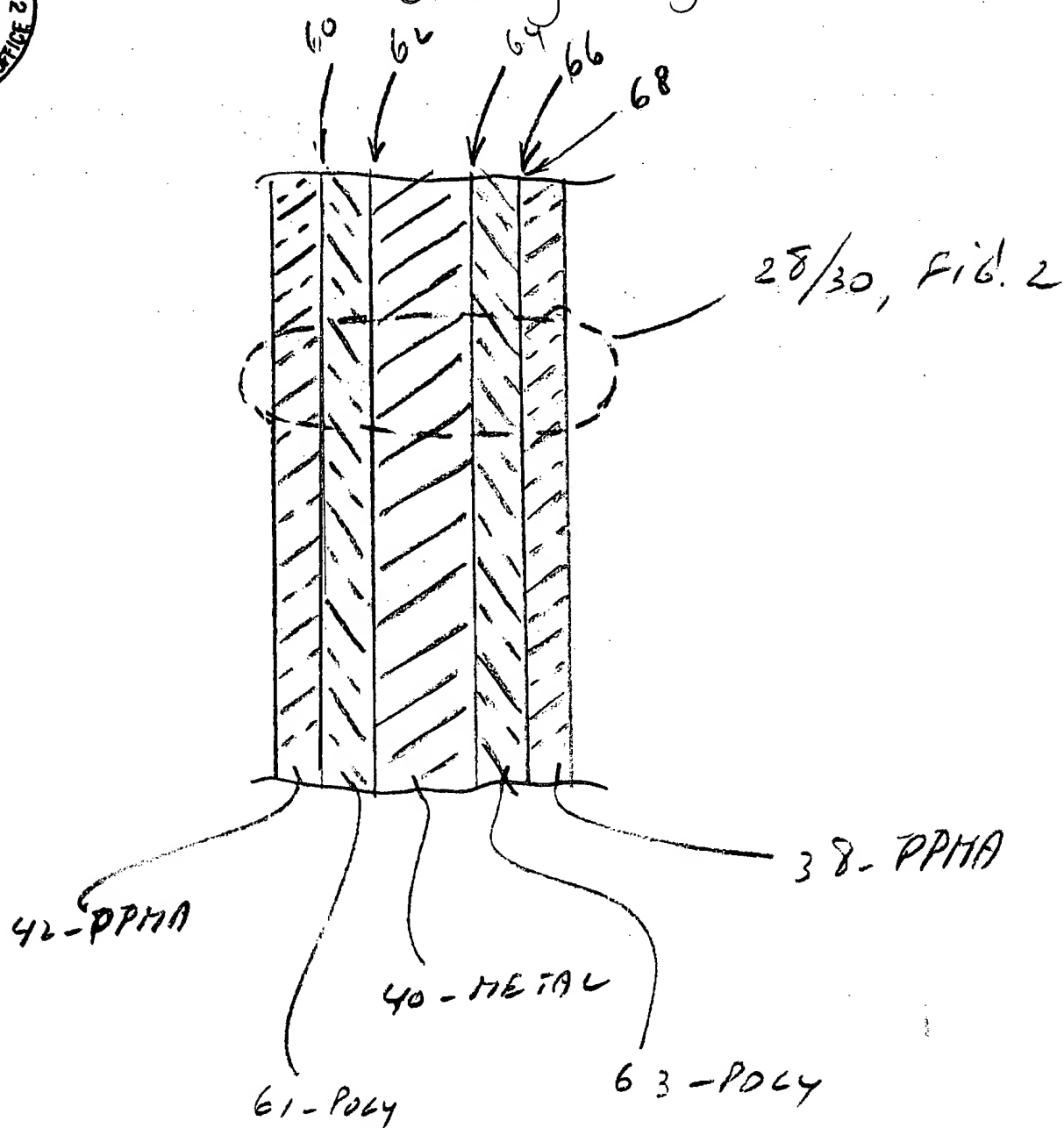


FIG. 5.